

Recent response of vegetation water use efficiency to climate change in Central Asia

Haichao Hao, Xingming Hao, Jianhua Xu, Yaning Chen, Hongfang Zhao, Zhi Li, Patient Mindje Kayumba

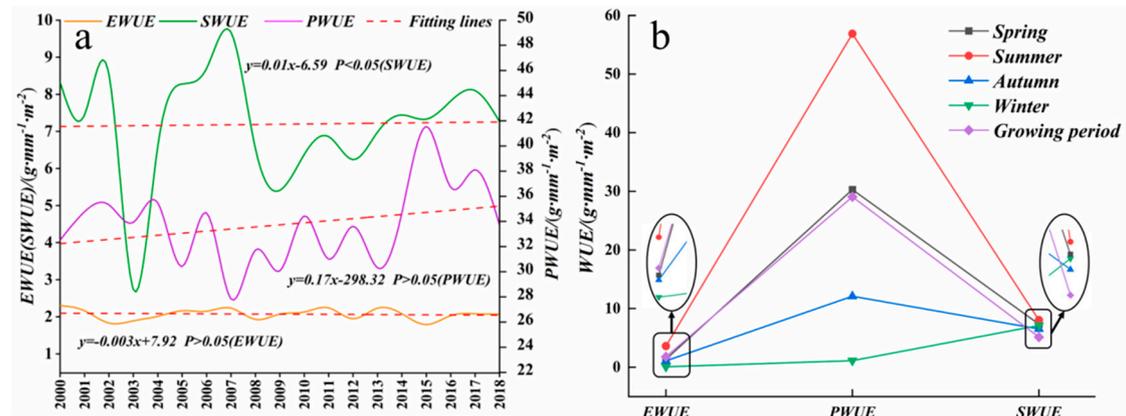


Figure S1. The inter-annual variation of WUE and climate factors in Central Asia and the seasonal variation of WUE from 2000 to 2018 (a. Interannual variation of WUE b. Intra-year seasonal variation of WUE).

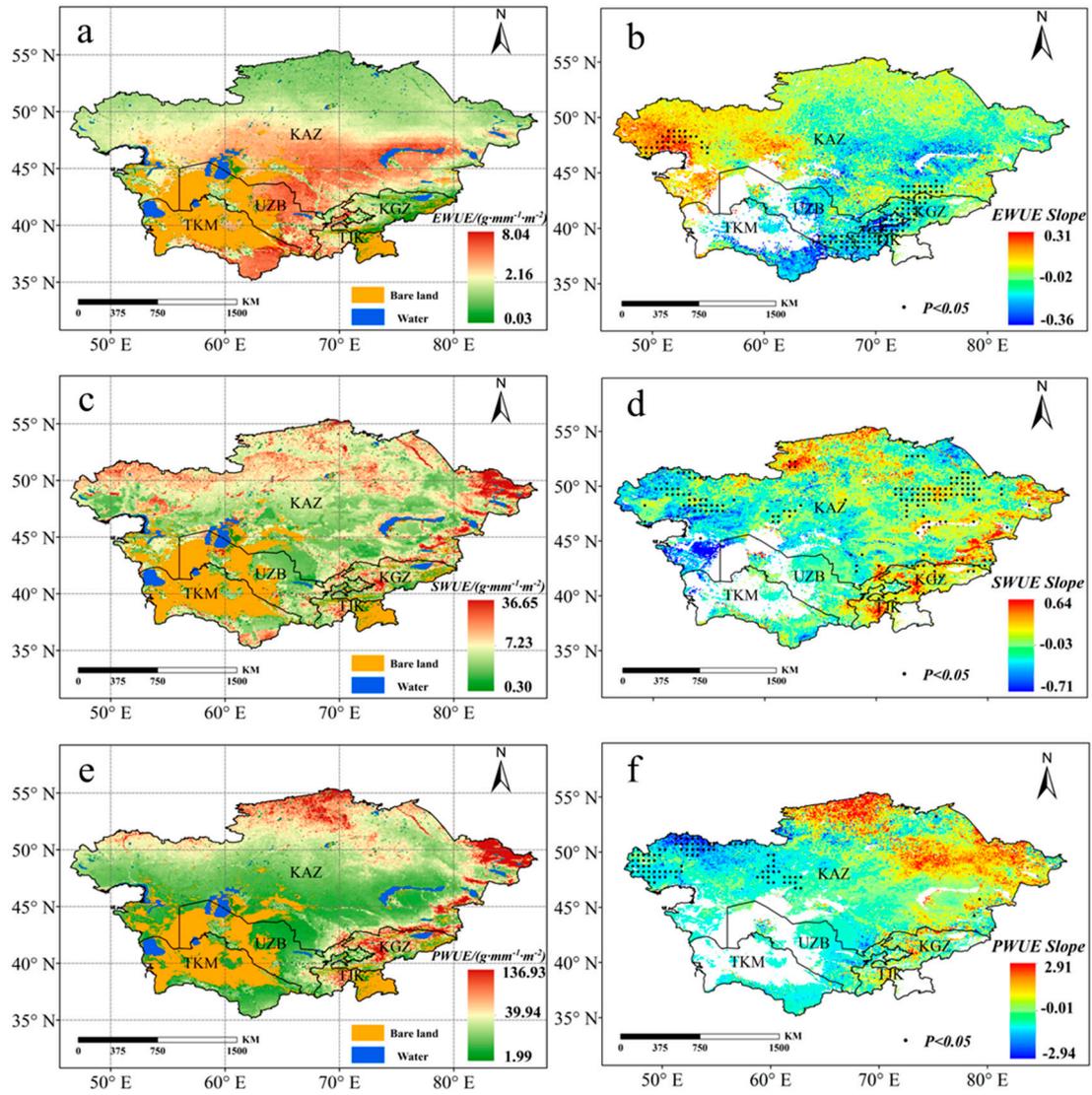


Figure S2. The spatial distribution patterns of EWUE, SWUE, and PWUE in Central Asia from 2000 to 2018 (a. Average EWUE b. EWUE trend c. Average SWUE d. SWUE trend e. Average PWUE f. PWUE trend).

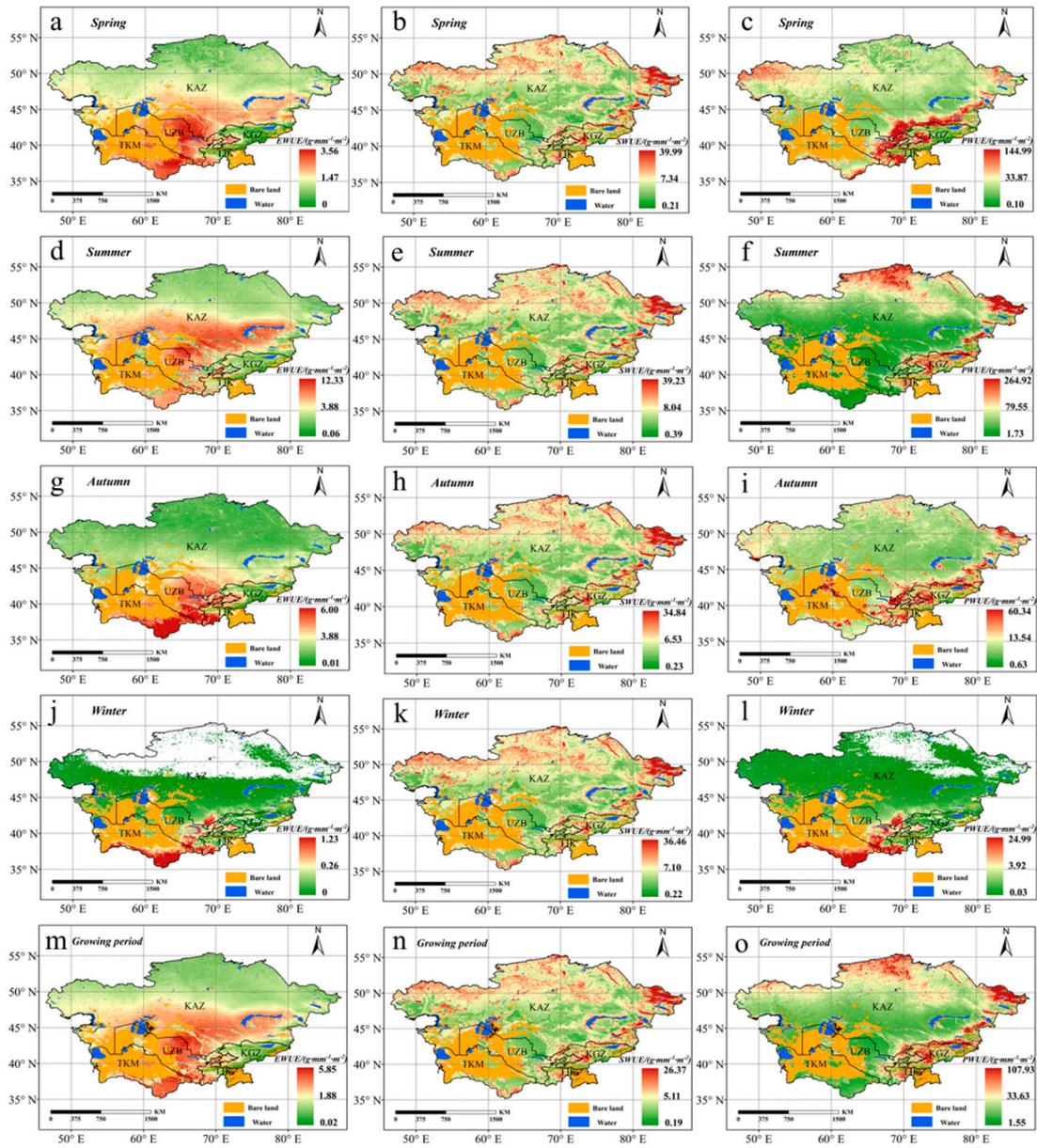


Figure S3. Spatial distribution of vegetation water use efficiency by season and growing period in Central Asia from 2000 to 2018. (a),(d),(g),(j) and (m) are the interannual mean of EWUE spring, summer, fall, winter and growing period; (b),(e),(h),(k) and (n) are the interannual mean of SWUE spring, summer, fall, winter and growing season; (c),(f),(i),(l) and (o) are the interannual mean of PWUE spring, summer, fall, winter and growing season.

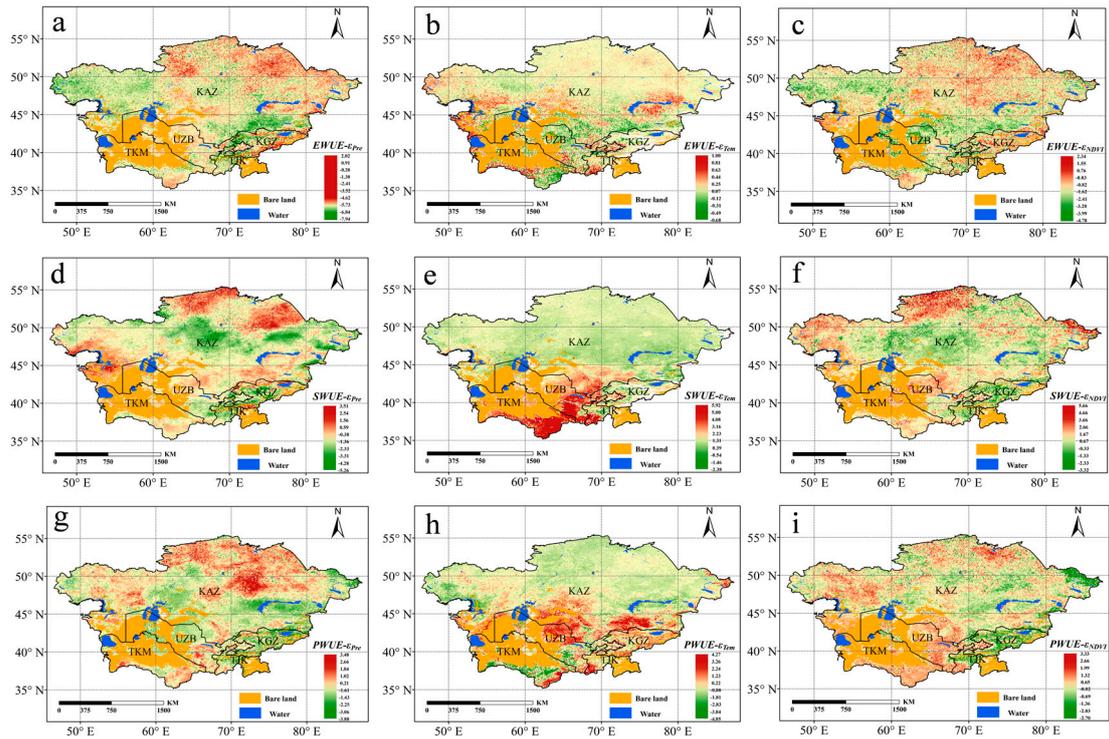


Figure S4. The sensitivity coefficients of EWUE, SWUE and PWUE to climatic factors (temperature, precipitation and NDVI) in Central Asia from 2000 to 2018. (a), (b) and (c) are the sensitivities of EWUE with respect to precipitation, temperature and NDVI, respectively; (d), (e) and (f) are the sensitivities of SWUE with respect to precipitation, temperature and NDVI, respectively; (g), (h) and (i) are the sensitivities of PWUE with respect to precipitation, temperature and NDVI, respectively.